

**AN EXAMINATION OF SELECTED FACTORS INFLUENCING THE
CAREER DECISIONS OF ABORIGINAL UNIVERSITY STUDENTS**

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Dedication

To my parents, Halina and Mirosław Grygo, who have been a constant source of support and wisdom during my education. And to my friend, Taunya Budarick, who encouraged and supported me throughout this process.

Abstract

This study documents and analyses Aboriginal post-secondary students' perceptions of selected influences on their career development and planning. Six areas are examined: 1) parental influence; 2) teacher influence; 3) peer influence; 4) ethnic and gender expectations; 5) academic self-efficacy; and 6) the role of negative social events. A questionnaire based on the Career Interest Inventory (Fisher & Stafford, 1999) was administered to 150 undergraduate students. Three factors were significant for this population: 1) positive influence in the form of support from parents, teachers, peers, and students' academic experiences and self-efficacy; 2) negative social events in the context of having friends in trouble with the law, addictions, teen pregnancy, indifference to schooling, dropping out of high school, and deaths of friends; and 3) ethnic and gender expectations emanating from parents and teachers. Based on these findings, directions for further research, and implications for counselors and educators, are outlined.

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Chapter 1: Introduction

Background to the Problem

According to the 2001 Canadian census, 976,305 Canadians identified themselves as being Aboriginal¹, representing 3.3 percent of Canada's population (Statistics Canada, 2003). The largest concentration of Aboriginal people is in the North and in the Prairie provinces, where Aboriginal people represented approximately 14 % percent of the total population in Manitoba and Saskatchewan, and 5% in Alberta (Statistics Canada, 2003). The city of Winnipeg has the greatest number of Aboriginal people, 55, 755, accounting for 8% of its total population (Statistics Canada, 2003). The Aboriginal population is on average 13 years younger than the general population and has a birth rate that is 1.5 times higher than the non-Aboriginal birth rate (Statistics Canada, 2003). Due to the inevitable increase within the Aboriginal working-age population in the near future, it will be important to increase its participation in the labor market (Malatest et al., 2004). However, numerous barriers have been cited as affecting the career paths of Aboriginals including "coping with addictions, grief, homesickness, segregation, suicide, discrimination, adoption, cross-band rivalries, pregnancy, sexual and physical abuse, neglect, lack of role models, and shame and confusion about personal and cultural identity" (Peavy, 1995, p. 3).

In terms of education, Aboriginal people have not yet been able to attain levels on par with other Canadians (Waldram, Herring, & Young, 1995). Aboriginal youth are continuing to struggle in school and are not entering the work force at the same rate as

¹ The term 'Aboriginal people' as employed by Indian and Northern Affairs Canada is the collective name for the original peoples of North America and their descendants. For the purposes of this thesis the term 'Aboriginal people' will be used unless referring to a specific citation or historical document.

other Canadians (Consulbec, 2000). Aboriginals are also less likely than non-Aboriginals to attend or complete a post-secondary education (Indian and Northern Affairs Canada, 2000). According to the 2001 Aboriginal Peoples Survey published by Statistics Canada (2003), for every 100 non-Aboriginal people aged 25 to 44 with a post-secondary diploma or degree, there were 71 Aboriginal people. Family responsibilities and finances were the most common reasons given for not finishing post-secondary studies (Statistics Canada, 2003).

Prior to the 1960s, the barriers to Aboriginal participation in post-secondary education were largely insurmountable (Malatest et al., 2004). With the exception of a few Aboriginal teacher education programs that were started in the mid-1960s in Ontario and the Northwest Territories, little in post-secondary education for Aboriginal peoples existed prior to the 1970s (Richardson & Blancet-Cohen, 2000). Historically, education has been “powerfully assimilative and tended to alienate Aboriginal people from their families and communities” (Malatest et al., 2004, p.11). For many Aboriginals, formal education as it is popularly understood translates into abandonment of their culture. (Brade, Duncan, & Sokal, 2003)

Despite the barriers facing Aboriginals, the number of Aboriginal students attending university is slowly increasing. According to census data from 1981 and 1996, the number of Aboriginal university completions increased from 2.6 to 4.5 percent during that period. Several factors have contributed to the increase in Aboriginal students attending post secondary programs including: the establishment of new university-based programs for Aboriginal students and the introduction of Native Studies programs, on-campus support services and facilities for students, partnerships between Aboriginal

communities and post-secondary institutions which offer community based educational programs in these communities, modification of admission protocols, and an increase in funding for Aboriginal students (Richardson & Blancet-Cohen, 2000).

Some argue that post-secondary education for Aboriginal people “has held out the hope of nurturing individual talents and providing escape from grinding poverty” (Castellano, Davis, & Lahache, 2000, p. 171). Tait (1999) argued that further improvements in Aboriginal youths’ levels of educational attainment are required as this would help contribute to the development of new government structures and institutions for Aboriginal peoples. Fortunately, researchers have begun to examine the factors that promote academic success for Aboriginal students. For example, Bowker (1993) identified four factors that determined persistence in education of American Indian women: 1) a caring adult role model or mentor who helped the student develop a sense of purpose, 2) the impact of schools and teachers, 3) a strong sense of spirituality and strong moral purpose in life, and 4) low family stress. Furthermore, Montgomery, Mivelle, Winterowd, Jeffries, and Baysden (2000) found that post-secondary retention and completion rates were affected by perceptions of social support systems from family, other Aboriginal students, and tribal elders.

Significance of the Problem

This is a crucial time for improving practices aimed at Aboriginal participation and success at Canadian post secondary institutions because of the high numbers of Aboriginal students who will be ready for higher education in the next few years (Malatest et al., 2004). Unless the low rate of formal post-secondary education in the Aboriginal population is ameliorated, it will have a direct impact not only on the career

options open to Aboriginal youth but also on the overall state of Aboriginal society's health, wealth, and potential for the future (Malatest et al., 2004). Kirkness and Barnhardt (1991) contend that, in order to sustain their own cultural identity, Aboriginal peoples have an urgent need to assume roles as teachers, doctors, lawyers, administrators, and so on. In addition, high levels of competitiveness and the rapid rate of change in the workplace make it essential for Aboriginal students to become as prepared as possible to increase their chances of success (Hughey & Hughey, 1999).

To prepare students to meet these challenges, career development must be a priority (Hughey & Hughey, 1999). Thus far, the career development of many Aboriginals consists of unfulfilled dreams, untapped potential, and economic struggles (Herring, 1992). Therefore, the more we know about the factors that influence the career development of this population, the better counselors, educators, and policy makers can help Aboriginal people achieve their academic and career potentials. This study emerges from the problems outlined thus far, and constitutes an attempt to examine some of the influences affecting the career development of Canadian Aboriginals.

The Need for Theory on the Career Development of Minorities

Unfortunately, a comprehensive theory of career development that would address the needs of a diverse population does not yet exist. The extant theories of career development have received criticism for having been developed from research on Caucasian, middle-class males, thereby ignoring the racial, cultural, social, economic, and psychological realities that shape minorities' lives. This renders the theories inapplicable to the realities faced by minority populations (Arbona, 1995; Carter & Cook, 1992; Smith, 1983). As Fisher and Griggs (1995) argue, the generalizations that have

been made in career research have created a narrow and misguided view of the constructs that shape the career profiles of minority students. With the increasing numbers of minorities attending post secondary institutions and seeking promising careers, the need for strong and valid career development concepts becomes crucial (Osipow & Littlejohn, 1995).

The Need for Continuing Research

Despite the fact that there are almost a million Aboriginal people in Canada (Statistics Canada, 2003), little is known about the factors that influence career development within this population. Few career development researchers and theoreticians have specifically addressed the career development of Aboriginal peoples in Canada. With Aboriginals being the fastest growing population in Canada, it is important for counsellors to know how appropriately to support the career paths of these individuals. Furthermore, the identification of career influences for the Aboriginal population can help to produce a more comprehensive view of their career development (Fisher & Stafford, 1999).

Chapter 2: Literature Review

Exploring the various factors contributing to the career decision-making processes of Aboriginal people is difficult, given the lack of career development research on Aboriginal populations in Canada. A review of the research related to career development of minority populations in general, and Aboriginal populations specifically, provides a useful general context within which the author's study may be placed.

Applicability of Theoretical Models

Questions regarding applicability of extant career theories to minority groups are very important, according to Smith (1983), because they form the basis of how vocational psychologists conceptualize work-related behaviours and help determine policy decisions for funding occupational programs. As Tinsley (1994) stated over a decade ago, "It seems obvious that a somewhat different configuration of factors influences the career development of persons of different cultural and racial heritage" (p.115).

For some time now, the effects of race and ethnicity have been acknowledged by several leading career development theorists, including Holland and Gottredson (1981), Krumboltz (1996), and Super (1980), but have not yet been fully integrated conceptually or tested empirically. Carter and Cook (1992) argued that current career theories lack an integration of both personality characteristics and external factors, including economic and social circumstances, and cultural institutions, that play a significant role in the lives and career choices of visible racial/ethnic groups.

Criticisms of the applicability of the extant theories of career development to minority populations have been varied. While some researchers see some value in the existing career theories, despite their shortcomings, others have dismissed the theories as

irrelevant for, or at the very least severely limited in, their application to racial minorities (Smith, 1983). Some have argued that theories of career development based on research samples of the culturally dominant group cannot be relevant to minority groups because the assumptions on which they are based on are not applicable (Brown, 1990; Smith, 1983).

Individuals from different cultural backgrounds should be expected to differ in the expectations, aspirations, and values they bring to the career development process, they encounter different problems and barriers which they must resolve, and they differ in their attitudes about career development (Tinsley, 1994). However, most current theories of career choice make the following assumptions: 1) work is central to the lives of all individuals, 2) most career choices flow essentially from the character of one's personality, 3) people have an array of choices open to them and are free to choose a career that matches their interests, values, and abilities, and 4) careers are continuous, uninterrupted, and progressive with both psychological and economic resources being available to aid career development (Brown, 1990; Osipow, 1975; Smith, 1983) that may not apply to racial and ethnic minority groups. Furthermore, most racial minority groups' members face discrimination, stereotyping, and unequal access to education. This impacts on their career decisions, but it is not a reality that is reflected in the dominant culture theories (Brown, 1990).

For Aboriginal populations specifically, many current career theories and practices are inadequate. This is due partly to the theories' focus on individualist values rather than the collectivist values shared by many Aboriginal peoples (Darou, 1998). Furthermore, Aboriginals living on reservations face additional barriers due to their

limited knowledge of the world of work, and even when resources are made available, they may be perceived as a 'part of the problem' due to social issues related to labeling, assimilationist strategies, and perceived racism (Consulbec, 2002; Darou, 1998; Fitzgerald & Betz, 1994; Martin, 1991).

Brooks (1990), after reviewing the existing career literature, concluded that the gaps in the theoretical research concerning ethnic and racial minority groups were substantial and that a relevant theoretical framework was still lacking. Johnson, Swartz, and Martin (1995) suggest that three theoretical frameworks - Trait-Factor, Social Learning, and Ecological - offer a foundation for understanding the career development needs of Aboriginal people. These three approaches, as well as two other theories in the career development literature - systems theory and acculturation models - are reviewed next.

Career Development Theories

Trait-Factor approaches. Trait-Factor theories focus on the person-environment relationship and propose that "Individuals, when given the opportunity to possess accurate information about themselves and various occupations, can make rational vocational decisions" (Brown, 1990, p.13). Trait-Factor theories are based on four assumptions (Klein & Weiner, 1977): 1) individuals possess measurable traits; 2) occupations require individuals to have specific traits; 3) individuals can match their traits to a specific job; and 4) individuals that match their traits to their occupation will achieve more success and satisfaction from their work.

Holland's theory of vocational choice, based on the trait-factor approach and considered by Isaacson and Brown (1997) to be the most influential of the extant career

theories, proposes that “A person expresses personality through the choice of a vocation” (Isaacson & Brown, 1997, p. 23). According to Holland (1997), individuals search for environments that allow them to use their skills and abilities and express their attitudes and values. A congruent person-environment match presumably results in a “more stable vocational choice, greater vocational achievement, higher academic achievement, better maintenance of personal stability, and greater satisfaction” (Isaacson & Brown, p. 24).

According to Johnson et al. (1995), this perspective is applicable to an Aboriginal population because it stresses the importance of cultural and social background variables. It emphasizes the full exploration of effects of an individual’s history and socialization as part of the process of formulating a career development plan and identifying possible areas of vocational development (Holland & Gottfredson, 1981). The emphasis on an assessment of the individual’s knowledge of the world of work is also of particular importance for Aboriginal populations, as they may have a limited breadth of knowledge about career opportunities offered by the dominant culture (Johnson et al., 1995).

Social learning approaches. Krumboltz’s (1996) theory of career decision making attempts to explain how factors including gender, ethnicity, and socioeconomic status affect career decisions. According to Krumboltz’s theory, four factors influence the process of making a career decision: 1) genetic endowment and special abilities (i.e. race, gender, and intelligence); 2) environmental conditions and events including job opportunities, social policies, and educational systems; 3) learning experiences consisting of both instrumental learning that occurs when an individual acts on the environment to produce certain consequences and associative learning that occurs when individual learns by reacting to external stimuli, observing models, or pairing two events in time or

location; and 4) task approach skills including performance standards, values, and work habits (Isaacson & Brown, 1997).

Krumboltz (1979) suggests an individual's decision to enroll in a certain education program, or become employed in a particular occupation, is the result of "sequential cumulative effects of numerous learning experiences affected by various environmental circumstances and the individual's cognitive and emotional reactions to these learning experiences and circumstances" (p. 37). Krumboltz cautions against considering the process of enrolling in an education program or gaining employment as being simply a function of preferences, and stresses the role and influence of multiple factors.

According to Fisher and Padmawidjaja (1999), Krumboltz's approach to career development is applicable to racial/ethnic minority populations because it allows for the investigation of a wide range of personal, familial, cultural, and environmental factors that, in different combinations, play a role in one's career choices. An important aspect of this perspective is the recognition of the important role that modeling of behavior plays, among other learning experiences, in career choices and career development for Aboriginal populations (Johnson, Swartz, & Martin, 1995). LaFromboise, Trimble and Mohatt (1990) suggest that, since Aboriginals have historically learned their traditions and customs through modeling of behavior- and experientially-based learning, many occupations may be viewed as inaccessible if they have not seen other Aboriginals in those career roles (Johnson et al., 1995). This lack of role models may have a significant negative effect on Aboriginal youth who, lacking appropriate and relevant role models,

may turn to less appropriate or less relevant ones thus compromising their career development paths (Johnson et al., 1995).

Lent, Brown, and Hackett's (1996) Social Cognitive Career Theory (SCCT) purports to provide a useful framework for understanding the career development of both women and some minority groups. SCCT is similar to Krumboltz's theory as far as it is based on Bandura's (1986) social cognitive theory and focuses on the interactions between personal, contextual, and learning factors in shaping career choices (Lent et al., 1994). SCCT is further similar to Krumboltz's SCCT model in that it focuses on the roles of three social cognitive mechanisms: 1) self-efficacy beliefs, defined as people's judgments about their capabilities to perform given behaviours; 2) outcome expectations, defined as the expected consequences of performing a particular action; and 3) goal representation, defined as the determination to engage in a particular action (Bandura, 1986). SCCT differs from Krumboltz's theory in that it places more emphasis on self-regulatory cognitions. SCCT appears to provide a relevant framework for analyzing career choices and paths of Aboriginal people by incorporating the variables that may influence the career choices of that population, including discrimination, economic variables, and the culture of the individual (Isaacson & Brown, 1997).

Ecological approaches. Ecological approaches attempt to examine "the match or mismatch between an individual and the reciprocal nature of the person-environment association" (Fine, as cited in Johnson et al., 1995, p. 121). This approach stresses that both social and physical stimuli from individuals' immediate environments impact their behavior and experience (Johnson et al., 1995; LaFromboise, Trimble, & Mohatt, 1990). Ecological models propose "that 1) individuals function within an interrelated system of

relationships, 2) behaviour is impacted by both internal and external forces, and 3) individuals' behaviour is a result of attempts to maintain homeostasis in their environment" (Wicker, as cited in Johnson et al., 1995, p.121).

For example, Bronfenbrenner's (1979) theory of human ecology examined the impact of the larger context on the reciprocal relationship between individuals and the dynamic properties of their immediate settings. Bronfenbrenner divided the environment into four environmental structures: the microsystem (the intimate aspects of the individual's development in family and work); mesosystem (the link between the individual's microsystems); exosystem (events that do not directly affect or are affected by the individual); and macrosystem (the cultural and societal beliefs and ideologies that influence functioning within the microsystem).

Ecological approaches argue that individuals do not exist or act in isolation, but are a part of an interrelated system of relationships. This viewpoint is compatible with Aboriginal value systems, which also perceive Aboriginal people as members of a social system, such as a tribe, rather than isolated individuals. Ecological approaches stipulate that, in the context of career assessment and counselling, the needs of individuals should be addressed within the context of their own social network rather than in isolation (Johnson et al., 1995).

Systems theory. Carter and Cook (1992) proposed that systems theory could serve as an initial step to fill the void they identified in the career literature. They argue that systems theory provides a framework "to understand the varied forces and influences that interact with one another and together impact visible racial/ethnic group members' career choices" (p. 193). Systems theory conceptualizes the elements and components

associated with career choice as an interactive system composed of historical, sociopolitical, sociocultural, family, and psychological factors and processes. Members of visible racial/ethnic groups exist and function in subsystems that form their specific cultural system that, in turn, is a part of the whole system of American Society. Therefore Aboriginals career paths are affected by the characteristics of all of the subsystems and systems in which they exist, including the structure of the general society.

Specific characteristics of that structure, namely boundaries, alignment, and power are of particular interest to career researchers. Boundaries are conceptualized as rules that regulate participation and roles, impose limits on what each person or group is permitted to do, how they can interact with and within the system, define the context in which communication occurs, and regulate interactions within the system and between subsystems. The system and subsystem boundaries affect career choices of visible racial/ethnic group members in multiple ways including institutional inclusion or exclusion, socio-economic resource distribution, labour force participation, access to institutions, and stereotypes.

The second characteristic of systems theory, alignment, represents the pattern of subsystems joining with one another, often for the purpose of upholding basic cultural values or achieving implicit socio-cultural goals. Carter and Cook (1992) posited that various levels of government align to allocate fewer resources to segregated communities with primarily visible racial/ethnic group members, and educational systems align with political agendas to communicate to visible racial/ethnic groups that they do not belong. These authors also pointed out that the standards of the business community and the

general occupational world are aligned in a way that conflicts with the educational backgrounds and lifestyles of racial/ethnic groups.

The third characteristic of systems theory, power, represents the ability of individuals or groups in the system to set or change boundaries and alignments. According to Carter and Cook (1992), power is often used to relegate visible racial/ethnic groups to low or marginal status jobs. Many subtle forms of communication are used to convey to individuals that they are 'out of place' when they cross racially or ethnically based occupational boundaries.

Acculturation models. Acculturation has recently received attention among social and behavioural scientists as a factor that has a significant impact on the career development of ethnic and racial minority populations (Arbona, 1990; Everett, Proctor, & Carmell, 1983; Johnson et al., 1995). Johnson et al. and Peavy (1995) proposed that acculturation also plays a significant role in the career choices of Aboriginals. The term acculturation refers to the process of cultural change fostered by the experience of continuous, firsthand, contact between two culturally different groups (Keefe & Padilla, 1987). The process of acculturation, according to Padilla (1980), is influenced by several factors: language familiarity and usage; cultural heritage; ethnicity; ethnic pride and identity; and interethnic interaction and interethnic distance.

Ryan and Ryan (as cited in Johnson et al., 1995) proposed five distinct categories depicting levels of acculturation for Native American populations. The categories include: 1) Traditional refers to individuals who generally speak in their native language and know little English. They observe old traditions and values. 2) Transitional refers to individuals who generally speak both English and their native language in the home.

They question basic traditionalism and religion, yet cannot fully accept the dominant culture and values. 3) Marginal refers to those who may be defensively Native American but who are unable either to live the cultural heritage of their tribal group or to identify with the dominant society. This group tends to have the most difficulty coping with social problems. 4) Assimilated refers to those people who, for the most part, have been accepted by the dominant society. They have generally embraced the dominant culture and values. 5) The term bicultural refers to individuals who, for the most part, are accepted by dominant society, but they also know and accept their tribal traditions and culture. According to Ryan and Ryan, acculturation occurs on a continuum and will impact individuals career development in different ways.

The Meaning of Career for Aboriginal Populations

Morgan, Guy, Lee, and Cellini (1986) suggest that many Aboriginal people view career development and career choice differently than other populations. For some Aboriginals the concept of career choice is not meaningful, in particular for those living on reservations (Darou, 1998). Family, home, and community are seen as more important than a job or career; for some Aboriginal people those considerations outweigh the desire to make career decisions that could disrupt their support systems (Martin, 1991). Many Aboriginals take jobs that are designed to fill the needs of their community, rather than finding work that would be personally interesting or rewarding to them (Darou, 1987). In addition, some Aboriginal people believe that social position is not gained from high professional status, but is based primarily on “personal power, global ability, and inner spiritual power” (p. 6).

Juntunen et al. (2001) explored the meaning of career and related concepts to American Indians. The authors interviewed 18 individuals from Northern Plains American Indian communities. Five categories emerged from their data: the meaning of career, definitions of success; supportive factors; obstacles; and living in two worlds. Sixteen of the 18 participants identified a career as a lifelong endeavor and a representation of their lifelong goals, planning, or activity. Success was described by the majority of participants as “a collective experience, determined by the contribution made to others regardless of the material value of that contribution” (p. 280).

The three remaining categories showed some important differences. The participants who completed some high school or graduated from high school identified education as an important positive factor, and the lack of support from their families as the primary obstacle, on their career journey. Participants with some postsecondary education identified family members as playing a supportive role in their career development and discrimination and alienation as obstacles. As far as “living in two worlds” is concerned, participants with a postsecondary education reported that they saw the white and native worlds as being distinct and distant from one other. However, participants with postsecondary education spoke of the two worlds as more integrated and some reported experiencing a third, more holistic world.

Career Interests of Aboriginals

The little research that has been conducted on the career development of Aboriginal people has focused primarily on structure and range of vocational interests, and self-estimates of ability to reach career goals (Turner & Lapan, 2003).

Three studies conducted in the U.S. have examined the structure of vocational interests of American Indians (Day & Rounds, 1998; Day, Rounds, & Swaney, 1998; Hansen, Scullard, & Haviland, 2000). All reported that Holland's interest structure was found to be an appropriate model for American Indian high school and college students. In addition, the interests of American Indian participants were found to be similar to African American, Mexican American, Asian American, and Caucasian participants by all three research studies. Native American students, however, were found to be interested in fewer careers.

Krebs, Hurlburt, and Swartz's (1988) study compared the vocational self-estimates and competencies of non-native students and native high school students from northern Manitoba, using the Holland Self-Directed Search (SDS), a vocational interest inventory. The norms for Caucasian high school students reported in the SDS manual were used to compare native and non-native students. The findings of the study showed significant differences between the native and non-native students on 10 of 12 SDS self-estimate scales. Native males scored significantly higher on the friendliness scale, similar on artistic and musical scales, and significantly lower on the nine remaining scales. Native females scored significantly higher on the mechanical subscale, similar on the musical, friendliness, managerial, and office skills, and lower on the remaining scales.

This study also found significant differences between native and non-native males in perceived vocational competencies on four of the six SDS Occupational Codes. In addition, significant differences were found on four of the six SDS Occupational Codes between native and non-native females. These results suggest that the native students in this study often recorded lower self-estimates and perceived competencies than the

normed scores for non-native high school students for the SDS. The authors suggest that the findings demonstrate that the native students in their sample felt a lack of confidence in their vocational skills and employment opportunities. Similarly, Ludwig (1984) found large discrepancies between Native American students' occupational aspirations and their expectations. He further stated that vocational aspirations did not match the students' expectations because of a lack of self-confidence. In addition, Consulbec (2002) found that, in a Canadian sample, most of the Aboriginal youth surveyed were unaware of the academic preparation and requirements for many of the professions and trades that they were interested in pursuing.

Turner and Lapan (2003) explored the relationship between environmental supports, personal factors, career self-efficacy expectations, and career interests among Native American and Caucasian adolescents. Mapping Vocational Challenges (MVC), a computerized career assessment inventory, was used to measure career interests, efficacy expectations, and perceptions of parental support. The findings of the study suggest that there is a strong correspondence between perceived parental support and the confidence of Native American and Caucasian adolescents to successfully perform the tasks associated with various occupations. The study also found significant gender differences in career interests for Native American and Caucasian participants.

Factors Affecting Career Development for Aboriginals

Many factors are thought to affect the ways that Aboriginals engage in career planning, including "interaction with the majority culture, community and family influences, adapting to a success structure different from one's own, and negotiating various obstacles are all relevant when considering a career" (Juntunen et al., 2001, p.

282). Juntunen et al. suggest that it is important to consider the community context and the individual's role as a member of the community and the expression of that role through a career choice.

Fisher and Griggs (1995) examined the personal, social, and institutional factors that influenced the career development of African-American and Latino undergraduate students. The authors conducted twenty retrospective interviews with eleven African-American (nine females and two males) and nine Latino (three females and six males) students who were participating in a summer internship program. Twenty of the participants already made career decisions and were enrolled in programs relevant to those careers. The authors used two research questions to guide the interview: 1) What subjective factors in key contextual domains-including self, home, school, and community-have contributed to the career development and choice? 2) How do students identify and prioritize the crucial components of their successful career development and/or career decisions?

The analysis revealed four major themes contributing to the career development of the participants: 1) personal attributes; 2) home (e.g., parents, siblings, and relatives); 3) school (e.g., teachers, counsellors, and peers); and 4) community. The participants also cited goal-orientation and self-confidence as critical personal attributes influencing their career decisions. All participants cited the support of parents as a key factor in their career decisions and indicated that the most beneficial parenting behaviours included reinforcing the desire to learn, providing opportunities for career interests to develop and grow, and maintaining high expectations. Some participants reported that critical events such as a sudden death in the family, severe illness, or close friends encountering drug

addiction have played a vital role in their career development. Many participants identified high school as a primary place where they received career guidance, support, and role modeling from teachers, counsellors, and peers. In addition, a specific school relationship was often cited as having a positive impact. Finally, the community of the participants and significant others from the community were cited as playing a major role in helping to develop skills and interests. Internship programs were also rated as important for the participants. Fisher and Griggs' (1995) study is important as it found career influences not previously discussed in the career literature. In particular, the role of negative social events and the desire to be role models were themes not previously discussed in the literature on these populations.

Fisher and Stafford (1999) attempted to expand on the findings of Fisher and Griggs (1995) with a larger, more diverse, population. The authors developed the Career Influence Inventory (CII) to measure the six proposed constructs: 1) parental, 2) teacher, 3) friend influences, 4) ethnic-gender expectations, 5) high school academic experiences and self-efficacy, and 6) negative social events. The CII was administered to 564 undergraduates to examine the reliability and validity of the instrument. The results of the exploratory principal component analysis resulted in six factors that accounted for 63.3% of the variance. The teachers' influence factor accounted for 25.2% of the variance and consisted of 8 items (factor loadings ranging from .66 and .84) related to the perceptions of teachers' beliefs and interests in the student, encouragement, expectations, and being role models. Negative social events accounted for 12.9% of the variance and consisted of 7 items (factor loadings ranging from .76 to .83). The items related to having friends that had: 1) been in trouble with the law, 2) dropped out of school, 3) didn't care about doing

well in school, 4) becoming teen parents, 5) had drug problems 6) had passed away and/or 7) had died violently.

The third factor, parents' influence, accounted for 9.0% of the variance and consisted of 7 items relating to the perception of parents' beliefs about the student (factor loadings ranging from .65 to .89). The fourth factor consisted of 6 items relating to high school academic experiences and self-efficacy and accounted for 6.8% of the variance. Factor loadings ranged from .62 to .86. The next factor, ethnic gender expectations accounted for 5.4% of the variance (factor loadings ranging from .76 to .87) and consisted of 3 items related to the perceptions of parents' and teachers' expectations based on gender or ethnicity. The sixth factor, the influence of friends, accounted for 4.3% of the variance and consisted of 4 items relating to the perception of friends being role models and being interested and encouraging. One item, which was reverse coded, related to friends' not caring about the participant's career plans. Factor loadings for this factor ranged from .60 to .79.

The factors were found to be significantly correlated with each other except for ethnic-gender expectations, both friends' influence and high school academic experiences, and self-efficacy. In addition, Cronbach's alphas were calculated to establish the internal consistency of the CII. Cronbach's alpha for the 35 items was .89. The factors parents' (.91) and teachers' (.90) influences and negative social events (.90) had the strongest internal consistencies. Moderate internal consistencies were found for the other three factors: high school academic experiences and self-efficacy (.85), ethnic-gender expectations (.75), and friends' influence (.74).

The findings of Fisher and Stafford (1999) suggest that the CII is an instrument that should be further investigated. In particular, the question of whether the CII is a valid instrument when applied to a predominantly ethnic population is important according to the authors. In addition, having the six external constructs available in one instrument is a benefit for researchers and therefore important to determine if the CII is a valid instrument for a diverse population. Based on this information, it was believed that the six external constructs of teacher influence, parent influence, peer influence, academic expectations and self-efficacy, negative social events, and ethnic-gender expectations, as measured by the CII, may be an influence on the career planning of Aboriginal post-secondary students.

Chapter 3: Purpose and Method of Study

Purpose of the Study

This study documents and analyzes Aboriginal postsecondary students' perceptions of selected factors in their career development. The factors are grouped into six areas: parent, teacher, and friend influences, negative social events, high school academic experiences and self-efficacy, and ethnic-gender expectations. Based on the results of previous research (Fisher & Griggs, 1995; Fisher & Stafford, 1999), it was predicted that the six factors may be significant in the career development of Aboriginal students.

Method

Participants

Participants in this study included 150 undergraduate students attending a post-secondary institution in Winnipeg, Manitoba. Ninety-eight (65%) of the participants were female and 52 (35%) were male. Twenty-nine percent (n = 44) of the participants were in the 17-21 year age range, 19% (n = 29) aged 22-25, 25% (n = 37) aged 26-30, and 27% (n = 40) aged 31 and above. The participants identified themselves as members of the following groups: Status Indian (n = 104; 69.3%), non-Status Indian (n = 5; 3.3%), Métis (n = 40; 26.7%), and Inuit (n = 1; 0.7%).

The participants further identified themselves as members of the following bands: Cree (n = 56; 37.3%), Ojibway (n = 46; 30.7%), Sioux (n = 10; 6.7%), Assiniboine (n = 1; 0.7%), and Other (n = 24; 16.0%). Thirteen (8.7%) of the participants did not identify themselves as belonging to a band. The majority of the participants were in their first year of university studies (n = 68; 45%), 25% (n = 38) were in their second year of

studies, 17% (25) were in their third year of studies, 6% (n = 9) were in their fourth year of studies, and 7% (n = 10) were in their fifth year or above. Eighty-one percent (n = 121) of the participants in this study had decided on a career, while 19% (n = 29) of participants were still considering a number of career choices. The careers they had selected are shown in Table 1.

Table 1. Career Choices of Participants

Career	Number	Percentage
Social Worker	38	25.3
Nurse	22	14.7
Engineer	21	14.0
Teacher	17	11.3
Doctor	9	6.0
Lawyer	9	6.0
Entrepreneur	6	4.0
Counsellor	4	2.7
Pharmacist	3	2.0
Environmentalist	3	2.0
Medical Researcher	2	1.3
Business Manager	2	1.3
Accountant	2	1.3
Policy Analyst	2	1.3
Probation Officer	2	1.3
Physiotherapist	1	.7
Dentist	1	.7

Career	Number	Percentage
Biochemist	1	.7
Dental Hygienist	1	.7
Nutritionist	1	.7
Anthropologist	1	.7
Trades Person	1	.7
Film Maker	1	.7
n = 150		

Measures

Two questionnaires were used in this study; a 10-item demographic questionnaire and the Career Influence Inventory (CII).

1. *Demographic Questionnaire*. Participants completed a 10-item demographic questionnaire that reported gender, age, ethnicity, educational history, and career choice.

2. *Career Influence Inventory (CII)*. The CII, developed by Fisher and Stafford (1999), is a 35 item self-report measure that was designed to assess six career influence constructs: 1) parental influence, 2) teacher influence, 3) peer-influence, 4) ethnic-gender expectations, 5) academic self-efficacy, and 6) role of negative social events. The constructs established by Fisher and Stafford (1999) consist of items that assess the perceptions of events and interpersonal relationships that are believed to influence career decisions. Respondents indicated the degree of their agreement with the statement on a 4-point Likert scale ranging from 4 (strongly agree) to 1 (strongly disagree).

Procedure

Participants were recruited for this study between August and December of 2004. Permission was obtained to speak to classes and orientation sessions that were

specifically for Aboriginal students. Participants were informed about the study through short presentations in their classes by the investigator. The purpose of the study was described, and students were shown how to respond to the questionnaires. The students were instructed not to put their names or other information on the questionnaires that would identify them in order to ensure anonymity. Students were then asked to participate on a voluntary basis. Following informed consent (see Appendix), the participants filled out a brief demographic questionnaire and the Career Influence Inventory.

Limitations

The generalizability of the results of this research is limited to Aboriginal university students from the province of Manitoba. Other Aboriginal students from other parts of Canada may show different responses. In addition, many of the participants attend specialized programs for Aboriginal students. Aboriginal students not participating in Aboriginal programs may also show different responses. Further, while this research demonstrated associations between the factors proposed by Fisher and Stafford (1999) and influence on career decisions, this is only an initial investigation of these factors with this population.

Chapter 4: Results

150 questionnaires were completed, and means and standard deviations for the 35 items on the CII were computed (see Table 2). Cut-off points on the means were established with a view to describing perceptions as positive (P) if the mean score on the 4-point Likert scale was 3.0 or above, and negative (N) if the score was 2.25 or below. Mean scores within the 2.25 to 3.0 range were regarded as neutral.

Table 2. Means and Standard Deviations of the Career Interest Inventory

Item	M	SD
1. My teachers made me feel that I could succeed in school.	3.04	.874
2. Some of my friends were in trouble with the law.	2.40	.983
3. My parents/guardians made me feel that I can succeed in school.	3.20	.897
4. I felt confident about my ability to do well in school.	2.91	.882
5. My parents/guardians encourage me to perform well in school because of my sex.	1.92	.764
6. My friends served as role models for me.	2.38	.887
7. My teachers believed that I could succeed in school.	3.06	.805
8. Some of my friends decided to drop out of high school.	2.14	.976
9. My parents/guardians believe that I can succeed in school.	3.31	.835
10. During high school I was aware of the strategies needed to be academically successful.	2.60	1.03
11. My teachers expected me to work hard in school because of my sex.	1.77	.625
12. My friends were interested in doing well in school.	2.53	.849
13. My teachers were interested in me, not just in how I did in school.	2.59	.828

Item	M	SD
14. Some of my friends are no longer living.	2.64	.922
15. My parents encourage me to do my best in school.	3.24	.849
16. School was difficult for me.	2.70	.873
17. My parents/guardians expect me to work hard in school because of my race.	1.91	.717
18. My friends encouraged me to do my best in school.	2.50	.833
19. My teachers expected me to keep trying when faced with obstacles.	2.92	.858
20. Some of my friends became teen parents.	2.17	.925
21. My parents/guardians are interested in my career plans.	3.18	.913
22. I felt competent in all subjects in school.	2.64	.869
23. My friends did not care about my career plans.	2.64	.762
24. My teachers encouraged me to do my best in school.	2.89	.820
25. Some of my friends did not care about doing well in school.	2.13	.774
26. My parents/guardians expect me to keep trying when faced with obstacles.	3.17	.865
27. My teachers were interested in my career plans.	2.65	.875
28. Some of my friends became dependent on drugs.	2.15	.932
29. My parents/guardians serve as role models for me.	3.01	.945
30. My teachers expected me to go to university.	2.63	.965
31. Some of my friends died violently.	2.77	1.06
32. My parents/guardians expected me to go to university.	2.91	.965
33. My teachers served as role models for me.	2.79	.957

Item	M	SD
34. Which of the following best describes your grades in high school?	2.29	.832
35. In your high school classes, were your academic grades?	2.49	.896

The means for the 6 items relating to parents' influence were found to be above the 3.0 cut-off, indicating that parental influence was a positive factor for the participants in the study. Looked at in terms of frequency distribution (see Table 2) the majority of participants agreed or strongly agreed (ranging from 78.7%-84%) that parental factors were an influence for them.

Two items that relate to teachers' influence were also found to be above the 3.0 cut-off. The majority of the participants (78.7%), agreed or strongly agreed to the statement "My teachers made me feel that I could succeed in school," while 80.0% of participants agreed or strongly agreed to the statement "My teachers believed that I could succeed in school." This suggests that the positive influence of teachers was important for the participants.

Several items that concerned ethnic-gender expectations and negative social events were found to be below the 2.25 cut-off, indicating strong levels of disagreement by participants that these items were influential for them. Three items relating to ethnic-gender expectations including: "My parents encourage me to perform well in school because of my sex" (81.3% disagreed or strongly disagreed), "My teachers expected me to work hard in school because of my sex" (90.7% disagreed or strongly disagreed), and "My parents expect me to work hard in school because of my race" (84% disagreed or strongly disagreed) had strong levels of disagreement by participants.

In addition, three items relating to negative social events were found to be in the negative range. 71.3 % of participants, disagreed or strongly disagreed with the statement “Some of my friends became teen parents,” 76.0% disagreed or strongly disagreed with the statement “Some of my friends did not care about doing well in school,” and 69.3% disagreed or strongly disagreed with the statement “Some of my friends became dependent on drugs.”

Table 3. Frequency Distributions (%) of the Career Influence Inventory

Item	SD	D	A	SA
1. My teachers made me feel that I could succeed in school.	7.3	14.0	46.0	32.7
2. Some of my friends were in trouble with the law.	18.0	42.0	22.0	18.0
3. My parents/guardians made me feel that I can succeed in school.	5.3	16.0	32.0	46.7
4. I felt confident about my ability to do well in school.	6.7	23.3	42.0	38.0
5. My parents/guardians encourage me to perform well in school because of my sex.	30.0	51.3	15.3	3.3
6. My friends served as role models for me.	16.0	42.3	31.3	11.3
7. My teachers believed that I could succeed in school.	4.7	15.3	49.3	30.7
8. Some of my friends decided to drop out of high school.	29.3	39.3	19.3	12.0
9. My parents/guardians believe that I can succeed in school.	4.0	12.0	33.3	50.7
10. During high school I was aware of the strategies needed to be academically successful.	17.3	28.7	30.7	23.3

Item	SD	D	A	SA
11. My teachers expected me to work hard in school because of my sex.	32.7	58.0	8.7	.7
12. My friends were interested in doing well in school.	10.7	38.0	38.7	12.7
13. My teachers were interested in me, not just in how I did in school.	10.0	32.7	45.3	12.0
14. Some of my friends are no longer living.	9.3	38.7	30.7	21.3
15. My parents encourage me to do my best in school.	5.3	10.7	38.7	45.3
16. School was difficult for me.	8.0	33.3	39.3	19.3
17. My parents/guardians expect me to work hard in school because of my race.	28.0	56.0	13.3	2.7
18. My friends encouraged me to do my best in school.	12.0	36.0	42.0	10.0
19. My teachers expected me to keep trying when faced with obstacles.	9.4	12.8	54.4	23.5
20. Some of my friends became teen parents.	23.3	48.0	16.7	12.0
21. My parents/guardians are interested in my career plans.	8.0	10.0	38.0	44.0
22. I felt competent in all subjects in school.	9.3	34.0	40.0	16.7
23. My friends did not care about my career plans.	8.0	34.0	40.0	16.7
24. My teachers encouraged me to do my best in school.	7.3	17.3	54.0	21.3
25. Some of my friends did not care about doing well in school.	17.3	58.7	17.3	6.7
26. My parents/guardians expect me to keep trying when faced with obstacles.	6.7	10.0	42.7	40.7

Item	SD	D	A	SA
27. My teachers were interested in my career plans.	10.7	29.3	44.0	16.0
28. Some of my friends became dependent on drugs.	26.0	43.3	20.0	10.7
29. My parents/guardians serve as role models for me.	10.0	14.0	41.3	34.7
30. My teachers expected me to go to university.	14.7	27.3	38.0	20.0
31. Some of my friends died violently.	15.3	23.3	30.0	31.3
32. My parents/guardians expected me to go to university.	9.3	23.3	34.7	32.7
33. My teachers served as role models for me.	11.3	24.0	38.7	26.0

Item	As	Bs	Cs	Ds	Below D
34. Which of the following best describes your grades in high school?	16.0	45.3	33.3	4.0	1.3

Item	Among the best	Above Average	Average	Below Average
35. In your high school classes, were your grades?	16.7	28.0	44.7	10.7

Exploratory Principal Component Analysis

A principal component analysis (PCA) was conducted. Based on the factor extraction, eigenvalues (≥ 1), and scree plot, seven factors were identified accounting for 68.29% of the variance. One item, "School was difficult for me", did not load on any factor. Seven items loaded on more than one factor at .41 or greater and these items were assigned to the factor with the highest loading.

Factors were then examined for a common theme underlying the items loading on each. Three interpretable factors were identified and retained that accounted for 52.29% of the variance (see Table 4).

Accounting for 32.71% of the variance, 24 items relating to positive perceptions of encouragement to do well in school and succeed by parents, teachers, peers, and themselves (factor loadings ranged from $-.41$ to $.82$). Eight of the items related specifically to the perceived support of teachers, including the teachers' beliefs and interests in them, encouragement, expectations for overcoming obstacles, and having teacher's as role models (factor loadings ranged from $.59$ to $.82$). Seven of the items related to the perceived support of parents, including having belief and interest in their child, encouraging them, having expectations of them to go to university and to overcome obstacles, and serve as role models to their children (factor loadings ranged from $.69$ to $.77$). Four of the items related to the perceived support of peers including the interest or lack of interest and encouragement of peers, as well as having peers as role models (factor loadings range from $.55$ to $.66$). Five items related to the student's perceptions about their abilities in school, competence in school, and strategies to be successful (factor loadings range from $-.41$ to $.77$).

The second factor, accounting for 11.91% of the variance, consisted of 7 items relating to negative social events or obstacles that the individual had experienced such as having friends in trouble with the law, dropping out of high school, not caring about doing well in school, becoming teen parents, experiencing addictions to drugs, and passing away (factor loadings range from $.52$ to $.74$).

The final factor accounted for 7.19% of the variance, it concerned ethnic-gender expectations and consisted of 3 items that related to perceptions of parents' and teachers' expectations based on the gender or ethnicity of the student (factor loadings range from .61 to .63).

Internal Consistency

To establish internal consistency of the interpreted factors, Cronbach's alphas were calculated for the CII as a whole and for each of the three factors (see Table 4). Cronbach's alpha for the entire scale of 35 items was .91. This result is similar to the results of Fisher and Stafford (1999), who found Cronbach's alpha for the CII of .89. Cronbach's alphas for the three factors range from .79 to .92 (Table 4), with the first factor consisting of teachers', parents', peers' influence and self-efficacy showing the strongest internal consistency (.92). The remaining two factors had moderate internal consistency; negative social events (.85) and ethnic-gender expectations (.79).

Table 4. Career Influence Inventory Factory Loadings and Internal Consistency

Factor/Item	Factor loading	Correlation with total	Alpha if item deleted
Factor 1			
1. My teachers made me feel that I could succeed.	.74	.71	.93
7. My teachers believed that I could succeed in school.	.75	.72	.93
13. My teachers were interested in me, not just in how I did in school	.59	.54	.93
19. My teachers expected me to keep trying	.79	.78	.93

Factor/Item	Factor loading	Correlation with total	Alpha if item deleted
when faced with obstacles.			
24. My teachers encouraged me to do my best in school.	.82	.81	.93
27. My teachers were interested in my career plans.	.80	.79	.93
30. My teachers expected me to go to university.	.77	.74	.93
33. My teachers served as role models for me.	.61	.58	.93
3. My parents made me feel that I can succeed in school.	.74	.73	.93
9. My parents believe that I can succeed in school.	.75	.73	.93
15. My parents encourage me to do my best in school.	.70	.69	.93
21. My parents are interested in my career plans.	.68	.65	.93
26. My parents expect me to keep trying when faced with obstacles.	.77	.75	.93
29. My parents serve as role models for me.	.68	.68	.93
30. My parents expected me to go to university.	.69	.65	.93
My friends served as role models for me.	.43	.36	.94

Factor/Item	Factor loading	Correlation with total	Alpha if item deleted
My friends were interested in doing well in school.	.55	.45	.94
My friends encouraged me to do my best in school.	.66	.62	.93
My friends did not care about my career plans.	-.51	-.45	.95
I felt confident about my ability to do well in high school.	.64	.60	.93
During high school I was aware of the strategies needed to be successful.	.77	.74	.93
I felt competent in all subjects in school.	.57	.52	.94
Cronbach's alpha	11.45		
Eigenvalue	11.45		
% variance	32.71		
<hr/>			
Factor 2			
Some of my friends were in trouble with the law.	.67	.60	.65
Some of my friends decided to drop out of high school.	.73	.61	.65
Some of my friends are no longer living.	.64	.60	.66
Some of my friends became teen parents.	.72	.60	.66
Some of my friends did not care about doing well in school.	.58	.44	.69

Factor/Item	Factor loading	Correlation with total	Alpha if item deleted
Some of my friends became dependent on drugs.	.69	.67	.64
Some of friends died violently.	.61	.57	.66
Cronbach's alpha	.72		
Eigenvalue	4.12		
% variance	11.91		
<hr/>			
Factor 3			
My parents encourage me to perform well in school because of my sex.	.60	.66	.67
My parents expect me to work hard in school because of my sex.	.64	.65	.70
My teachers expected me to work hard in school because of my sex.	.63	.58	.76
School was difficult for me.	.50	.58	.76
Cronbach's Alpha	.79		
Eigenvalue	2.52		
% variance	7.19		

Correlations Between Factors

Factor intercorrelations are presented in Table 5. The intercorrelations among the three factors were low (-.11 to .23). The correlation between factor 1 and 2 was .23 and significant ($p = 0.01$). The correlation between factor 1 and 3 was .22 and was also

significant ($p = 0.01$). Factor 2 and 3 were negatively correlated ($r = -.11$) and were not found to be significant.

Table 5. Correlation Between Career Influence Inventory Factors

	Factor 1	Factor 2	Factor 3
Factor 1	1.00	.233	.218*
Factor 2	.233*	1.00	-.107
Factor 3	.218*	-.107	1.00

* Correlation is significant at the 0.01 level (2 tailed).

One-Way ANOVA

The one-way ANOVA revealed that the first factor, positive influences, differed significantly as a function of gender $F(1,148) = 5.310$; $p < 0.05$. The second factor, negative social events, and the third factor, ethnic-gender expectations, were not found to be significant as a function of gender.

Chapter 5: Discussion

This study is a unique contribution to research on career development as it represents one of the first attempts to examine relevant career influences on Aboriginal undergraduate students and to examine the suitability of the Career Interest Inventory (CII) for Aboriginal populations. There has been scant research on the career development of Aboriginal students in Canada, and no research specifically examining Aboriginal students' perceptions of factors that influence their career development.

The exploration of career influences on Aboriginal students offers important information for understanding the career development processes for this group. The identification of factors that influence Aboriginal students' career paths may be a significant step towards the development of improved career-related services for Aboriginal populations. The findings may also help guide future research and serve as a resource for counsellors, educators, and other professionals working with this population.

In order to investigate this relatively unexplored area of research, the primary goal of this study was to obtain information about the perceived factors that influence the career decision-making of Aboriginal post-secondary students. Following Fisher and Stafford (1999) this study focused upon six sources of influence: 1) teachers' influence, 2) parents' influence, 3) friends' influence, 4) academic expectations and self-efficacy, 5) negative social events, and 6) ethnic-gender expectations.

Informed by the research of Fisher and Stafford (1999), employing a complementary methodology, the present study investigated whether their findings could be replicated. The study also incorporated Fisher and Stafford's recommendation to sample from a predominately ethnic population. While Fisher and Stafford included

participants from eight different ethnic groups, this study focused on a more homogeneous sample of participants who self-identified as Aboriginal. This chapter provides a summary of the findings of the study, implications of the study's findings for counsellors, educators, and other professionals working with a Aboriginal population, and offers recommendations for future research related to the career development of Aboriginal post-secondary students.

Summary of Findings

The results of this study differed from the findings of Fisher and Stafford (1999). Whereas Fisher and Stafford (1999) found six distinct factors, in this study three factors emerged: 1) positive influences consisting of items related to teacher, parent, peer influences, and academic expectations and self-efficacy; 2) negative social events in the context of having friends in trouble with the law, addictions, teen pregnancy, indifference to schooling, dropping out of high school, and deaths of friends; and 3) ethnic and gender expectations emanating from parents and teachers.

Factor 1: Positive Influences

The positive influences factor was found to be the strongest factor, both in terms of internal consistency (.94) and variance (33.7%). This factor consisted of 24 items (factor loadings ranging from -.41 to .82) relating to perceptions of positive encouragement by the participant to do well in school and succeed by parents, teachers, peers, and academic experiences and self-efficacy. The four components of this factor will each be discussed separately.

Parents' influence. Parental influence was identified by a majority of participants as an important component in their academic and career planning. When asked if their

parents are currently interested in their career plans, 82.0% strongly agreed or agreed. Many of the participants also reported that their parents had served as role models for them (76.0%). In terms of education, the participants reported that their parents made them feel that they could succeed in school (78.7%), believed that they could succeed (84%), and encouraged them to do their best (84.0%). Sixty-four percent of participants reported that their parents expected them to go to university and keep trying when faced with obstacles (83.4%).

These findings are consistent with previous studies. Fisher & Padmawidjaja, (1999), Fisher & Stafford (1999), Grotevant & Cooper (1988), and Leung, Wright, & Foster (1987) found parents to be an important influence on their children's career decisions. This study also supports research by Fisher and Griggs (1995), which found several parental behaviours- including reinforcing the desire to learn, providing opportunities for career interests to develop, and maintaining high expectations- to be key ingredients in the career development process for African-American and Latino undergraduate students. Leung, Wright and Foster (1987) also found that parental concern and encouragement was an important source of influence on adolescents' post-secondary career plans. In addition, the findings of this study are consistent with the findings of Fisher and Stafford (1999) who found that items relating to perceptions of parents' beliefs, interest, and encouragement, and items related to expectations about going to university, overcoming obstacles, and having parent's serve as role models as important in influencing career planning.

Research concerning parental influence has also shown that parental influence is important across ethnic groups (Lee, 1984), but may be more important for some groups.

For example, Lee found that parents had a greater influence on the career choice of First Nations participants than was the case with Black or Caucasian participants. However this study and previous research suggests that parental support may be important factor for Aboriginal populations. In light of the fact that one-third of Aboriginal children under the age of 15 live in a single-parent home (twice the rate of the general population) and approximately 11.0% of Aboriginal children do not live a parent (Richardson & Blancet-Cohen (2000), counsellors and educators need to find ways of encouraging Aboriginal parents and Aboriginal students care-givers to become involved in their children's career development.

Teachers' influence. A large number of participants indicated that the support of teachers, including the teachers' belief and interest in them, encouragement, expectations for overcoming obstacles, and having a teacher as a role model, played a significant role in their academic performance and career paths. In particular, the majority of participants felt that their teachers believed that they could succeed in school (80.0%) and expected them to keep trying when faced with obstacles (77.9%).

These findings are in line with Fisher and Stafford's (1999) results. They found that teacher influence was the strongest influence in the career-planning process with undergraduate students. In addition, the role of teachers' expectations and support in the career goals of students has been investigated by Farmer (1985) who found that teachers who expressed an interest in their students' career plans and who served as role models were found to be important influences in their students' career choices. Fisher and Griggs (1995) found that school-related factors were instrumental in the career decisions of minority students, especially for minority females.

Interestingly, only 58.0% of participants in this research felt that their teachers expected them to attend university, and 60.0% felt that their teachers were interested in their career plans. “Because teachers spend a great deal of time with adolescents in close contact and from a position of authority, in much the same way as parents do, one might expect their concern and encouragement for school achievement to produce significant influence over adolescents’ attitudes and aspirations that might shape their career plans following high school graduation” (Leung, Wright, & Foster, 1987, p.176). Educators may need to pay special attention to the role they may play in encouraging Aboriginal students to attend university and to pursue their career plans, whatever they may be.

Friends’ influence. Approximately half of the participants agreed that their friends had encouraged them to do their best in school (52.0%), or had friends that were themselves interested in doing well in school (51.4%). Fewer participants agreed that their friends served as role models for them (42.6%). In fact, many felt that their friends did not care about their career plans (57.7%). These findings are consistent with those of Fisher and Stafford (1999) who reported that items related to friends’ influence had moderate factor loadings and accounted for only 4.3% of the variance in their study.

Other researchers found stronger support for the significant role that friends provide in terms of emotional resources and relevant role modeling (Berndt, 1996; Moore & Boldero, 1991). Felsman and Blustein (1999) examined the role of close peer relationships in adolescents and found that three factors- attachment to peers, peer intimacy, and mutuality- were all positively associated with facilitating the resolution of the exploration and commitment tasks of career development.

High school academic experience and self-efficacy. The importance of self-efficacy for career development was proposed by Betz and Hackett (1981) who reported significant relationships between self-efficacy and an individual's range of career options and efforts and achievements in his or her career. Self-efficacy was also found to be related to commitment and motivation to make career decisions (Lent & Hackett, 1987). The majority of participants in this study reported that they felt confident about their ability to do well in school (70.0%). They also felt competent in all subjects in school (56.7%) and were aware of the strategies needed to be academically successful in high school (54.0%). Fisher and Stafford (1999) found that academic self-efficacy and high school academic experiences play a significant role in influencing career planning with items accounting for 6.8% of the variance in their study, with moderate factor loadings ranging from .62 to .82.

Factor 2: Negative Social Events

Negative social events consisting of 7 items accounted for the next largest amount of variance (11.9%) with factor loadings ranging from .52 to .74. The items related to negative social events or obstacles that the individual had experienced including having friends in trouble with the law, experiencing addictions, becoming teen parents, not caring about school, dropping out of high school, and passing away. Forty percent of the participants reported that some of their friends were in trouble with the law, 30.7% reported that some of their friends were dependent on drugs, and 28.7% reported that some of their friends became teen parents. In terms of academic involvement and achievement, 24.0% of the participants reported that some of their friends did not care about doing well in school and 31.3% reported that some of their friends had dropped out

of high school. A high number of participants (52%) indicated that some of their friends are no longer living, and 61.3% indicated that some of their friends died violently.

The role of negative social events was identified in a study by Fisher and Griggs (1995) with half of the participants citing various critical events such as the sudden death of a family member or having friends experience drug addiction as contributing to their career decisions and helpful to overcoming career obstacles. Similarly, Fisher and Stafford (1999) found that external negative events or obstacles involving peers accounted for the second largest amount of variance (12.9%) in their study. In line with Fisher and Griggs (1995) and Fisher and Stafford (1999), this study lends support to the impact that various obstacles may play in career planning and “can serve as a starting point in exploring the relationship of resiliency and career development” (p.198).

Factor 3: Ethnic and Gender Expectations

The third factor, ethnic and gender expectations, accounted for 7.2% of the variance and consisted of three items that related to perceptions of parents' and teachers' expectations based on the participant's gender or ethnicity (factor loadings range from .61 to .63). There was a strong level of disagreement among the participants when asked if their teachers expected them to work hard in school because of their sex: 90.7% disagreed or strongly disagreed. When asked if their parents encourage them to perform well in school because of their sex, 81.3% disagreed, and 84.0% disagreed that their parents expected them to work hard in school because of their race. These findings are inconsistent with the findings of Fisher and Griggs (1995) and Fisher and Padmawidjaja (1997), who found that African-American and Latino undergraduates reported selecting

careers based on the desires of their parents, who wanted them to choose prestigious careers that would move their race forward.

Gender Differences

To determine if there were any gender differences, a one-way ANOVA was undertaken. The results show that gender was related only to the first factor, i.e. positive influences. This finding is contrary to Leung, Wright, and Foster (1987) who found no sex differences in adolescents' perceptions of parental concern and encouragement for school achievement, and that the gender of adolescents was not related to their career plans.

Utility of the Career Interest Inventory for Aboriginal Populations

The information obtained from the CII appears to be useful in obtaining information about some significant influences that affect the career paths of Aboriginal university students. The CII may also be helpful in identifying a lack of support or resources that are necessary for successful career development and planning. More research is necessary to determine whether the CII has validity as a 6-factor instrument with an Aboriginal population, as this study found only 3 interpretable factors.

Although the CII appears to provide some valuable information about the motivating factors affecting the career development of Aboriginal students, it may only have limited use because of the lack of culturally relevant items included in the questionnaire. For example, the questionnaire does not address the possible influence of members of the participant's extended family and members of their community. In addition, no consideration is given to an individual's personal value system or spiritual beliefs, which may be of particular importance to some Aboriginal students. Finally, for a

measure to be culturally relevant for an Aboriginal population there may need to be some consideration of whether the individual is living on a reservation community or in an urban environment, as those individuals who live on a reservation may face additional external pressures such as economic or social factors.

Implications for Practice

The findings of this study suggest that positive influences- including parents, teachers, friends, academic experiences and self-efficacy- play a role in the career decision-making process of Aboriginal undergraduate students. Negative social events and ethnic-gender expectations were also found to influence Aboriginal students in this study. These results have implications for counsellors, educators, and other practitioners working with Aboriginal populations.

This research is potentially important to professionals working with Aboriginal populations because the more information that we have about the factors that can promote career development the more we can assist Aboriginal students in their career development process. A better understanding of the issues facing Aboriginal students is important because of the increasing numbers of Aboriginal youth ready to enter the workforce in the near future.

Counsellors and educators who work with Aboriginal students may want to explore what role parents have played in their career choices and attempt to find ways of increasing positive support from parents. It will also be important to stress the importance of parental involvement in the career development process during high school and university, when students are exploring different career possibilities. Educating parents about the vital role they play in their children's future success and providing them with

opportunities to participate in career planning activities will be beneficial for both the students and parents. In addition, it may be important to consider the influence of teachers in the career decision-making process. Participants in this study indicated that teachers were a significant influence on them. Furthermore, the importance of positive influences for Aboriginal students is one that should be examined further as some have suggested that many children on reserves in particular may lack positive role models (Ross, 1991).

In relation to counselling practice, the results presented in this study suggest the possible benefit of exploring the level of positive support in the client's life, the role that negative social events may have played his/her career plans, and the influence of ethnic-gender expectations on them. Counsellors may want to encourage clients to maintain and use their current support systems and help them seek out positive supports if they do not already exist for the client. The findings of this study also suggest that interventions that focus on interpersonal factors and the establishment of support systems along with career counselling may be beneficial. In particular, students who do not already have an established support system, may benefit from joining various groups or activities at university in order to make connections with peers and teachers. The challenge will be for counsellors to develop ways of working with parents, teachers, and peer groups to help young people make career decisions.

Additionally, future researchers may wish to conduct qualitative studies to explore Aboriginal students' support systems in greater detail. They may also wish to examine how counsellors and educators can best aid students in maximizing their available support systems or establish new ones.

Conclusions

In summary, the data from the present study indicate that perceived positive support from parents, teachers, peers, and academic experiences and self-efficacy, is an important factor that influences Aboriginal undergraduate students' career development and planning. Negative social events and ethnic-gender expectations also emerged as important factors for this population. Although this study was exploratory in nature, it will hopefully stimulate further research in this area. Further investigations are needed to gain an understanding of what support systems Aboriginal students require to attain their career goals.

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Appendix A. Consent Letter

Dear Students,

I am currently enrolled in the Master of Education program at the University of Lethbridge and am conducting research for a thesis entitled: *Perceived Influences on the Career Decisions of Aboriginal University Students*.

The general purpose of this study is to examine the influence that certain factors have on Aboriginal university students' career paths. A study on the factors influencing career development of Aboriginal students in Canada has not yet been undertaken and I anticipate that both educators and counsellors will benefit from the study.

Each student who participates in the study is being asked to complete a questionnaire designed to assess the influences on career development and planning and gather information regarding one's background. This task will take about fifteen minutes to complete. This research will be conducted based on your voluntary participation and you are free to withdraw from the study at any time without penalty.

Complete anonymity and confidentiality will be maintained. No aspects of the data will use your name or allow identification of individuals. The data will be kept in a secure file that is accessible only by my supervisor, Dr. Kas Mazurek and myself. The data will not be kept longer than 5 years upon completion of the thesis. The results of this study may be published and the results presented at various conferences.

I would very much appreciate your assistance in this study. If you have any questions or would like any further information regarding the process or outcomes of this research, please feel free to contact me anytime by email at marta.grygo@uleth.ca. You may also contact the supervisor of my thesis, Dr. Kas Mazurek, University of Lethbridge,

at (403) 329-2462 and/or the Chair of the of Education Human Research Committee Dr.
Richard Mrazek at (403) 329-2452.

Yours sincerely,

Marta Grygo

If you choose to do so, please indicate your willingness to participate in the study
by signing this letter in the space provided below.

I, _____, agree to participate in this study.

Participant Signature _____ Date _____

Appendix B. Personal Data Questionnaire

Please note: Participation in this study is on a voluntary basis only. You may refuse to participate in this study simply by not completing this questionnaire. Refusal to complete this questionnaire will not have any consequences whatsoever. By completing this questionnaire, you are granting permission to the researcher to use the data provided for the study. Your data will remain strictly confidential and any reports of the results of the study will be completely anonymous.

Please answer the following questions by writing the appropriate number in the box.

1. Sex:

1. Male
2. Female

2. Age:

1. 17 – 21
2. 22 – 25
3. 26 – 30
4. 31 +

3. Are you:

1. Inuit
2. Métis
3. Status Indian
4. non-Status Indian

4. As a Status or non-Status Indian, are you:

1. Sioux
2. Ojibway
3. Cree
4. Assiniboine
5. Other

5. For the majority of your elementary and secondary education, did you attend:

1. Residential School
2. Band School
3. Urban Public School
4. Rural Public School

6. Which of the following best describes your grades in high school?

1. Mostly As
2. Mostly Bs
3. Mostly Cs
4. Mostly Ds
5. Mostly below D

7. In your high school classes, were your academic grades:

- 1. Among the best
 - 2. Above average
 - 3. Average
 - 4. Below average
-

8. University:

- 1. University of Manitoba
 - 2. University of Winnipeg
 - 3. Brandon University
-

9. Year of university studies:

- 1. First year
 - 2. Second year
 - 3. Third year
 - 4. Fourth year
 - 5. Fifth year and above
-

10. Have you decided on a career?

- 1. Yes
 - 2. No
-

11. If you answered yes to the above question, please note the career you have selected.

OR

12. If you have answered no to the above question, please note the three main careers you are considering.

Appendix C. Career Influence Inventory

Please show the extent of your agreement or disagreement with the following statements regarding your high school experiences by placing an "X" in the appropriate category. Please answer all questions.

		Strongly Disagree	Disagree	Agree	Strongly Agree
1.	My teachers made me feel that I could succeed in school.				
2.	Some of my friends were in trouble with the law.				
3.	My parents/guardians made me feel that I can succeed in school.				
4.	I felt confident about my ability to do well in high school.				
5.	My parents/guardians encourage me to perform well in school because of my sex.				
6.	My friends served as role models for me.				
7.	My teachers believed that I could succeed in school.				
8.	Some of my friends decided to drop out of high school.				
9.	My parents/guardians believe that I can succeed in school.				
10.	During high school I was aware of the strategies needed to be academically successful.				
11.	My teachers expected me to work hard in school because of my sex.				
12.	My friends were interested in doing well in school.				
13.	My teachers were interested in me, not just in how I did in school.				
14.	Some of my friends are no longer living.				
15.	My parents/guardians encourage me to do my best in school.				
16.	School was difficult for me.				
17.	My parents/guardians expect me to work hard in school because of my race.				
18.	My friends encouraged me to do my best in school.				

19.	My teachers expected me to keep trying when faced with obstacles.				
20.	Some of my friends became teen parents.				
21.	My parents/guardians are interested in my career plans.				
22.	I felt competent in all subjects in school.				
23.	My friends did not care about my career plans.				
24.	My teachers encouraged me to do my best in school.				
25.	Some of my friends did not care about doing well in school.				
26.	My parents/guardians expect me to keep trying when faced with obstacles.				
27.	My teachers were interested in my career plans.				
28.	Some of my friends became dependent on drugs.				
29.	My parents/guardians serve as role models for me.				
30.	My teachers expected me to go to university.				
31.	Some of my friends died violently.				
32.	My parents/guardians expected me to go to university.				
33.	My teachers served as role models for me.				

THANK YOU FOR YOUR PARTICIPATION!